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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MARCANTONI, PAUL D

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/643,854

Applicant(s)

SULLIVAN, FRANCIS W.

Examiner

Paul Marcantoni

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 and 35-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 and 35-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Applicants' amendment and response filed 4/27/05 has been acknowledged but is not convincing.

New Matter:

Claims 35-47 are rejected under 35 USC 112 first paragraph and 35 USC 132 as the specification as originally filed does not provide support for the invention as is now claimed

These new claims would not appear supported by the original disclosure. Should applicants briefly point out where they obtain their support for each new claim, it is expected that with a proper showing of support the rejection over these claims will be withdrawn.

Rejection under 35 USC 103:

Claims 1-30 and 35-47 are rejected under 35 USC 103(a) as obvious over Ramme et al. '336 B1, Garrett '802 B1, and Sato (JP 06157115-abstract only). The above cited references all teach a cement composition with the same components and in overlapping amounts. The only difference is that applicants allege to use *decorative* aggregate. Yet, the applicants do not specify specific materials they consider decorative aggregate so this could potentially read upon any aggregate such as rock, gravel, and even sand and thus would have been obvious to one of ordinary skill in the art.

Note: Dingsoyr '060 has been withdrawn.

Response:

Ramme

It is first noted that Ramme et al. '336 B1 teach a "packageable" cement mixture (see col.3, line 30). The applicants argue that Ramme et al. '336 B1 (hereafter Ramme) requires carbon fibers. In rebuttal, applicants use comprising claim language which opens their claims to the inclusion of non-specified ingredients even in major amounts. The applicants also argue that Ramme does not teach a decorative aggregate. In rebuttal, the applicants do not particularly point out and distinctly claim specific decorative aggregates. It is purely subjective to label an aggregate "decorative". Further, who is the final judge as to whether a specific aggregate is decorative or not? Applicants only? It is the examiner's position that sand and even fly ash can be construed as decorative and both are used for making concrete which, as one of ordinary skill in the art would have understood, is routinely used to make sidewalks, walkways, roads, building materials, etc. The applicants do not distinguish between fly ash, sand, and decorative aggregate so they can potentially be the same component. The applicants again argue carbon fibers yet cannot exclude this component because they use comprising claim language (see applicants claim 1).

It is also noted that Ramme teaches gravel, granite, and shale as possible coarse aggregate (col.4, lines 14-17). In fact, Ramme even teaches the same "decorative" aggregate listed in applicants' specification on page 15, lines 14-20 because he lists "granite" and granite chips. Applicants also argue that there is no disclosure in Ramme that their concrete does not contain coarse aggregate, or, Ramme

Art Unit: 1755

does not teach that their concrete does not contain coarse aggregate. In rebuttal, this directly contradicts applicants own specification because the listing on page 15, lines 14-20 teaches what seems to be coarse aggregate and certainly, "granite chips", "glass chips" and seashells are not fine aggregate like a powder such as sand. These are coarse aggregates as well so for applicants to argue that their own invention does not claim a coarse aggregate when the specification even lists coarse aggregate as the so called decorative aggregate is contradicting.

The applicants next argue that they use "consisting essentially of" claim language in claim 2 so this should exclude coarse aggregate such as granite because it materially affects their claimed composition. Yet, the applicants contradict themselves again because granite is listed on line 16 of page 15 of their specification as a decorative aggregate and there is no limitation that the granite is a fine powder. In fact, applicants even teach granite chips which is a coarse aggregate. It is not understood why applicants argue that their own invention does not contain a coarse aggregate when they even state that the decorative aggregate can still be ½ inch in diameter which qualifies as a coarse aggregate. Fine aggregate such as sand is in powder form and must smaller particle size than a ½ inch.

The applicants also argue intended use (use in soils) even though Ramme teaches a composition containing the same components in overlapping amounts. The new use of a known composition is not a patentable distinction. The applicants next argue that Ramme would not be motivated to use a decorative aggregate as do

Art Unit: 1755

applicants. The examiner disagrees again as Ramme even teaches the same decorative aggregate of applicants invention in granite.

The applicants argue motivation and argue that there is no motivation to remove carbon fibers of Ramme. In rebuttal, the applicants arguments are not commensurate in scope with the claimed invention because their invention can still include carbon fibers. Further, even to state "consisting essentially of" materially affecting their composition is not convincing either because it materially affects in a positive beneficial way and not a negative deleterious way. If the carbon fibers can conduct electricity from lightning and save someone's life from electrocution, how does that materially affect in a negative way. Had applicants specifically used "consisting of" instead of —consisting essentially of—their argument would have been convincing but they did not do so. This is not a suggestion but only a commentary on the applicants own remarks and present state of their claims. There is also no teaching why Ramme's conductive concrete cannot be used as a sidewalk (ie pedestrian traffic walkway) either because concrete is old in the art and known for this purpose and if carbon fibers can conduct electricity away from a person, it would not deleteriously affect the concrete for pedestrian walking.

The applicants also argue "hindsight" based on applicants disclosure. In rebuttal, the examiner is only applying the teaching of Ramme which teaches the same components in overlapping amounts. It is not hindsight to apply the teaching of the prior art when it teaches the limitations of the instant invention. It is also not picking and choosing because Ramme teaches the same components in overlapping amounts as applicants' claims.

Art Unit: 1755

Garrett '802 B1

Garrett '802 B1 (hereafter Garrett) teaches his cement mixture is "packageable" as well (col.5, line 40). The applicants argue that Garrett teaches adding sodium tetraborate pentahydrate as a retarder. It appears applicants argue that their own invention does not teach a retarder which is not the case. Applicants' claim 1, for example, teaches "reactive resins and hardeners therefor" as being examples of components that are not in their claimed composition because applicants' claimed composition is free of these components. In rebuttal, a hardener is not a retarder. If anything, an accelerator could potentially be construed as a hardening agent because it speeds up cement setting. Yet, the hardener is not a retarder but a hardener for the reactive resin. It is also noted that a pebble or a ceramic particle can still be a decorative aggregate. The applicants also argue features such as pebble size yet nowhere in many of the claims (e.g. claim 1) is there any size requirement for the decorative aggregate. Applicants cannot argue limitations they do not even claim. Applicants also cannot read the limitations of the specification (ie the specific decorative aggregates in their specification) into their claims because it is improper to do so.

The applicants also argue that Garrett teach ranges of amounts for cement in their examples outside the applicants claimed amounts. In rebuttal, a reference is good for all that it realistically teaches and is not limited to the examples or the preferred embodiments. Please refer to claim 1 of Garrett which contains no limitation for amounts of binder (or cement) so applicants' argument is not convincing since Garrett clearly does not limit himself to such a narrow amount of cement. The applicants argue

Art Unit: 1755

that Garrett teaches a different utility than their claimed invention. In rebuttal, Garrett teaches the same components in overlapping amounts and the new use of a known composition is not a patentable distinction.

The applicants argue that Garrett do not teach a specific particle size range of "quartzitic silica blend" (a fancy name for silica sand- a routine additive to concrete). In rebuttal, the applicants have not shown that control of their sand's particle size is critical and leads to an unexpected result versus Garrett. Control of particle size would have been an obvious design choice for one of ordinary skill in the art absent a showing of criticality or unexpected results. The applicant also argue that Garrett does not disclose slump. In rebuttal, control of slump for concrete/cement mixes is within the skill of one of ordinary skill in the art.

The applicants again return to the coarse aggregate argument (Garrett's pebble) even though their own decorative aggregate can be as large as $\frac{1}{2}$ an inch. The applicants' invention of their disclosure is not directed to only a fine aggregate. Nevertheless, Garrett teaches his aggregate can be silica sand (quartzitic silica blend) alone. Silica sand can still potentially be decorative. In fact, it is notoriously known in the art to add pigments to cement compositions and it would even be within the skill of the art to color the cement or the sand to make it decorative (which is subjective based on the eye of the viewer).

The applicants again seem to argue their invention is limited to fine aggregate (which it is not because their decorative aggregate can be a coarse size as large as $\frac{1}{2}$ inch).

Art Unit: 1755

Garrett teaches silica sand as an aggregate which is a fine aggregate and can also be deemed to be decorative (col.4, lines 43-45).

The applicants argue that Garrett does not teach fly ash but only silica fume. In rebuttal, fly ash and silica fume are functionally equivalent because both are pozzolans (see col.3 lines 38-40). It would have been an obvious design choice to substitute another pozzolan such as fly ash in lieu of silica fume because both are pozzolanic and thus functionally equivalent. Also, the applicants again argue they do not allow for a set retarder in their claimed composition. The examiner disagrees because they use comprising claim language. Further, a hardener for a reactive resin is certainly not a retarder. There is no reason why a retarder cannot be part of applicants' composition such as sodium tetraborate pentahydrate because applicants use comprising claim language. Retarders as well as accelerators are notoriously known additives conventionally added to cement and/or concrete to control setting time.

Sato et al.(JP 066157115-abstract)

Sato et al. (hereafter Sato) teaches the same components as applicants' claims and in overlapping amounts. The applicants argue that the difference between Sato and their claimed invention is not sand (quartzitic silica blend) which teaches an overlapping amount at 50% but epoxy resins which must be present in the amounts of 1-9 wt%. In rebuttal, the examiner brought the Japanese patent document (Sato) to a translator who stated that the epoxy resin could be other resins such as melamine resin, phenol resin, polyester resin, etc. Nevertheless, the only claim that contains any negative limitation for reactive resin and epoxy (resin) is claim 1. The other independent claims do not

Art Unit: 1755

have the limitation "free of additives selected from the group consisting of gypsum, limestone, reactive resins, and hardeners therefore, epoxy, and mixtures thereof" so they do not exclude reactive resins or epoxy.

Also, the Markush group limitation "free of additives selected from the group consisting of gypsum, limestone, reactive resins, and hardeners therefore, epoxy, and mixtures thereof" means that applicants' claim 1 be only free of one of these components. If it were only free of gypsum, Sato does teach gypsum can be present in an amount of 0% or not present at all. This would meet the limitation of claim 1. Further, there is also no teaching of limestone so if limestone were selected as the Markush group additive, Sato would also meet the applicants' claim 1. The only way Sato were not to meet the applicants' claims would be "and mixtures thereof" but this is only one of the possibilities and there is no requirement from the Markush group that mixtures thereof is the selected member of the group. It still can be gypsum which means Sato still meets the limitations of the claims including claim 1. Had applicants claimed a cement matrix composition free of gypsum, limestone, reactive resins and hardeners, epoxy, and mixtures thereof and not used the Markush language "selected from the group consisting of", their argument would have been convincing. However, they did not use this language. Also, it would appear that the use of this language may be new matter nevertheless. This is not a suggestion on how to amend applicants claims but only an observation on the present state of the claims and applicants own arguments.

The applicants again argue the aggregate for a decorative purpose but again, the applicants do not particularly point out and distinctly claim the specific decorative

Art Unit: 1755

aggregates. Sand, blast furnace slag, and fly ash could still potentially read upon the decorative aggregate because applicants do not distinguish from these other aggregate materials in their claims. The applicants also argue that Sato teaches an extruded body which applicants allege they do not do and use for a different purpose such as pedestrian traffic (ie walkway, sidewalk, etc.) Yet, the new use of a known composition is not a patentable distinction.

The finality of this office action is now proper. **THIS ACTION IS MADE FINAL.**

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni whose telephone number is 571-272-1373. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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